invasive cardiac testing to assess the likelihood of obstructive coronary artery disease (CAD). We hypothesized that use of a gene expression score (GES) would reduce diagnostic costs among non-acute symptomatic patients presenting to cardiologists. **METHODS:** The IMPACT-CARD Trial (NCT01251302) prospectively enrolled 88 patients without known CAD who presented with chest pain and related symptoms and were referred to one of six cardiologists. The cardiologist's diagnostic strategy was evaluated before and after GES testing, and diagnostic testing in a matched historical cohort of 83 patients was extracted from medical records. The GES is a previously validated, blood-based diagnostic test that determines the likelihood of obstructive CAD, with a negative predictive value of 96% among low GES (≤15) patients. We estimated per-procedure costs from commercially insured patients in a large, national health claims database. We applied these costs to the tests performed in the matched historical cohort and recommended in the prospective arm post-GES to calculate the cost of diagnostic evaluation in the trial. Given the rule-out nature of the GES, we focused this economic analysis on low GES patients. **RESULTS:** There were 52 low GES study patients. The total cost of cardiac diagnostic testing in these patients was lower than in the 52 matched controls ($2,450 versus $1,735 per patient, inclusive of the GES cost, p=0.23), though the difference was not statistically significant. This finding represents 29% savings ($715 per patient) in cardiac testing costs. No differences in clinical outcomes were observed between the groups. **CONCLUSIONS:** Physician use of the GES may be associated with reductions in diagnostic testing costs in low score patients. These savings reflect the potential economic utility of the GES in the diagnosis of obstructive CAD.

PCV119
IMPACT OF ACCESS TO TRANSCATHETER AORTIC VALVE REPLACEMENT ON THE INOPERABLE AORTIC STENOSIS MORTALITY IN THE CANADIAN HEALTH CARE SYSTEM

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OBJECTIVES: Transcatheter Aortic Valve Implantation (TAVI) is a cost-effective life-saving therapy for patients suffering from severe aortic stenosis (SAS) who are unable to undergo, or face prohibitively high risk to survival from, conventional open-heart surgery. The therapy is available in Canada on a limited basis, and access lags that in other developed nations. Access issues will become more acute in coming years as the population further ages, though to-date no efforts have been made to quantify need for TAVI procedures and the potentially unavoidable deaths occurring each year from capacity shortfalls. **METHODS:** We developed a population-based stock-and-flow simulation model using Microsoft EXCEL to quantify the prevalence and incidence of SAS, capacity to perform TAVI procedure, SAS patients longevity with and without TAVI and avoidable deaths from lack of access under various capacity-building scenarios for the provinces of Ontario, Quebec, British Columbia and Alberta. Our model was populated with data from published peer-reviewed articles, the StatsCan CANSIM database and the support of the Cardiac Care Network. **RESULTS:** We estimate that there is a severe shortage of capacity to perform TAVI procedures in relation to population needs that will result in 2,882 avoidable deaths over the three years from 2014 to 2017. The gap between need and capacity is greatest in Ontario. **CONCLUSIONS:** An increase in the capacity to perform TAVI procedures is needed to reduce the number of access-related mortality in Ontario, Quebec, British Columbia and Alberta.

PCV120
ECONOMIC IMPACT OF INSERTABLE CARDIAC MONITORS FOR DIAGNOSIS OF UNEXPLAINED SYNCOPE ON THE CANADIAN HEALTH CARE SYSTEM

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OBJECTIVES: Syncope is a common medical event that accounts for 1-3% of all visits to the emergency departments (ED), hospitalizations and falls, and is associated with high morbidity and deterioration of quality-of-life. Conventional testing strategies fail to diagnose underlying causes in more than 1/3 of cases, leading to repeat episodes and costly health care system interactions. We sought to better understand the burden of unexplained syncope on four Provincial health care systems in Canada and evaluate the impact of adopting testing strategies centered on Insertable Cardiac Monitors (ICM) as an alternative to current practice. **METHODS:** We evaluated the economic burden and implications of alternative strategies for the provinces of Ontario, Quebec, British Columbia and Alberta using a multi-cohort Markov-based simulation model developed in Microsoft Excel. Our model was populated with data from peer-reviewed papers, CIHI Patient Cost Estimator, the StatsCan CANSIM database and physician schedules of fees. **RESULTS:** We estimate that between 2014 and 2023, syncope will affect 223,000 people each year across the four provinces, and account for 97,000 ED visits, 11,000 hospitalizations and 6,000 falls annually in this period. A total of 1.5 million diagnostic tests will be performed under conventional strategies, compared to 626 thousand tests if every syncope patient post-2014 were assigned ICM following an initial unsuccessful diagnosis (43% reduction). The ICM strategy would also eliminate 12% of blackouts, 9% of falls, and 21% of ED visits and hospitalizations related to Syncopal events. The proportion of patients diagnosed would increase from 15% to 47% at 36 months, and the strategy would be largely cost-neutral with an average annual reduction of $43M per year in Syncope-related expenditures. **CONCLUSIONS:** We find that the burden of unexplained Syncope on Canadian health care systems is substantial, and wider utilization of ICMs in diagnosis could reduce this burden while improving the patient experience.

PCV121
REAL WORLD DATA: A TOOL FOR DECISION MAKING IN HEALTH CARE

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OBJECTIVES: This study aims to stimulate the use of secondary data in health economic analyses, based on a better understanding of available possibilities using Brazilian public health databases (DATASUS) and to develop a case study focused on the treatment of patients with acute myocardial infarction (AMI). **METHODS:** This study was conceived as a transversal observation of the available public databases, including outpatient and inpatient information. Conducting studies using real world data is possible due to the identification of the individual under treatment. This identification does not allow determining the patient's identity, but allows tracking patients' treatment and outcomes. The total amounts of spending in the outpatient and inpatient settings have been analyzed. Besides, a case study was developed focusing on patients hospitalized due to AMI. The quantity of treatments performed, treatment centers involved and the associated mortality were evaluated. High volume centers (HVCs) were compared to low volume centers (LVCs). **RESULTS:** In the outpatient setting, about 3 million patients were treated in 2011 resulting in expenses of approximately 8.7 billion dollars. In the inpatient setting, more than 9 million patients' records were found, resulting in expenditures of around 13.1 billion dollars. In 2012, 57,133 hospitalizations due to AMI were identified in 2,138 centers. Eighty per cent of the hospitalizations occurred in 25% of the centers. In the HVCs an average of 87 hospitalizations due to AMI were recorded per year versus 7 in the LVCs. The mortality rate due to AMI was lower in the HVCs when compared to the LVCs (14.9% vs 15.8%; p< 0.05) and the average length of stay was higher (8.7 vs 5.2 days). **CONCLUSIONS:** Health managers should use the thorough analyzes based on secondary data provided by DATASUS for decision making and to better allocate scarce resources in health care.

PCV122
A NEW FRONTIER: USING PHARMACY CLAIMS WITHIN THE EHR TO CONDUCT MEDICATION RECONCILIATION IN PRIMARY CARE PRACTICE

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OBJECTIVES: Medication reconciliation is a necessary process for the delivery of optimal patient care, yet can be difficult to do in the primary care setting due to limited time and resources. Dramatic improvements in health information technology may facilitate accurate and real-time medication reconciliation. The purpose of this study is to determine the potential impact of linked pharmacy claims within to the primary care electronic health record (EHR) to inform medication reconciliation in primary care practice. **METHODS:** We conducted a retrospective cohort study in patients that were prescribed a new antihypertensive between January 2011 and September 2012. We compared patients' active medications as recorded in a primary care practice EHR with those that were listed in pharmacy claims data available through the EHR. Only medications that were active in the 120 days prior to the new antihypertensive were considered. Medications that appeared in one data source but not the other were categorized as discrepancies. The primary outcome was the presence of at least one discrepancy. Predictors of discrepancy risk were calculated through logistic regression. **RESULTS:** A total of 609 patients qualified for study. Amongst all patients, 2947 medications were reconciled, with 1401 as discrepancies. The majority of patients (468, 76.9%) had at least one discrepancy. Predictors of the risk of having discrepancies included total medication count (OR: 0.17, p=<0.0001), at least one non-cardiovascular related comorbidity (OR: 0.84 p=0.0001) and a hospitalization in the previous year (OR: 0.48, p=0.007). **CONCLUSIONS:** A high rate of medication discrepancies was found amongst patients, along with significant predictors of occurrence. The use of linked pharmacy claims was able to show a more complete picture of a patient's medication use patterns. Such automated solutions could be used to screen available data sources to uncover discrepancies and identify patients who may benefit from tailored clinical interventions.

PCV123
PORTRAYAL OF STEREOTYPES IN DIRECT TO CONSUMER ADVERTISING OF ANTI-PSYCHOTICS AND STATINS

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OBJECTIVES: Pharmaceutical companies adopt distinctive marketing strategies to advertise drugs for hypertension and psychosis. This study explored the variance in stereotypes related to gender disparity and activity status (passive and active) used in video direct-to-consumer advertisements for anti-psychotics and statins class of drugs. **METHODS:** Fifty-eight unique video DTCA aired on NBC and CNN evening news were analyzed. The Vanderbilt TV News Archive Database was utilized to obtain random samples from each year which constituted to final sample of nine anti-psychotic and forty-nine statins ads aired between 1st January 1998 and 31st December 2011. Inter-rater reliability was assessed using Cohen's Kappa and was found to be acceptable for the variables used in the instrument. Data was analyzed using Fischer Exact test using SAS 9.3®. **RESULTS:** Out of the 58 ads, 41-ads portrayed males and 32-ads portrayed females as the primary character. The proportion of male character was significantly higher in statins ads compared to ads for antipsychotics (79.59 % vs. 22.22 %, p=0.0016). However, the proportion of female character was significantly greater in ads for antipsychotics compared to statins (88.89 % vs. 48.98%, p=0.034). In addition, a female character with passive status was significantly higher in antipsychotic ads compared to statins (66.67 % vs. 32.65 %, p=0.055). In contrast, a male character with active status was significantly greater in statins compared to antipsychotics (38.78 % vs. 0 %, p=0.0012). **CONCLUSIONS:** Gender and activity status stereotypes are quite prevalent in both anti-depressants and cardiovascular drugs. Males with active status were more likely to be featured in statins whereas female characters with passive status were more likely to be featured in anti-psychotics. Stereotypes in DTCA may potentially bias the decision making ability and prescribing behavior of physicians.

PCV124
A RETROSPECTIVE, CROSS SECTIONAL STUDY ON THE REAL-WORLD VALUES OF CARDIOVASCULAR RISK FACTORS USING A HEALTH CARE DATABASE IN JAPAN

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